ABSTRACT

A polyimide resin having a basic skeleton represented by the following general formula:

[Formula 1]

$$\left[\begin{array}{c|c}
O & O & O \\
N & Ar^{3} & N & Ar^{2} & N & R
\end{array}\right]_{m} (1)$$

(in the formula (1), each of Ar¹ and Ar² is an aromatic ring having a carbon number of 6-20, which forms an imide ring of 5 or 6 atoms with an imide group adjoining thereto. In the aromatic ring, a part of carbon atoms may be substituted with S, N, O, SO₂ or CO, or a part of hydrogen atoms may be substituted with an aliphatic group, a halogen atom or a perfluoro aliphatic group. Ar¹ and Ar² may be same or different. R is at least one of linear alkylene group and branched alkylene group having a carbon number of 1-20. Ar³ is an aromatic ring having a carbon number of 6-20 in which at least a part of hydrogen atoms is substituted with at least one of sulfoalkoxy group, carboalkoxy group and phosphoalkoxy group having a carbon number of 1-20 and a part of carbon atoms in these groups may be substituted with S, N, O, SO₂ or CO, or a part of hydrogen atoms may be substituted with an aliphatic group, a halogen atom or a perfluoro aliphatic group. n and m show a polymerization degree and are an integer of not less than 2.)